THE

Mineralogical Magazine

AND

JOURNAL

OF THE

MINERALOGICAL SOCIETY.

VOLUME XII.

Reprinted 1965 for
Wm. DAWSON & SONS LTD., LONDON
with the permission of
THE MINERALOGICAL SOCIETY

ORIGINALLY PRINTED IN GREAT BRITAIN BY MESSRS. WILLIAMS AND STRAHAM, LONDON. REPRINTED OFFSET LITHO BY BIDDLES LTD., THE CITY PRESS, GUILDFORD, SURREY

TABLE OF CONTENTS.

PAGE

Augelite from a New Locality in Bolivia. By L. J. Spencer, M.A., F.G.S., Assistant in the Mineral Department of the British Museum 1

Stanniferous Argyrodite from Bolivia: The Identity of the so-called "Crystallised Brongniardite" with Argyrodite-Canfieldite. By G. T. Prior, M.A., F.G.S., and L. J. Spencer, M.A., F.G.S., Assistants in the Mineral Department of the British Museum 5

Atacamite from Sierra Gorda, Chili. By G. F. Herbert Smith, B.A., Assistant in the Mineral Department of the British Museum... 15

On Sphærostilbite. By G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum 26

On Senaite, a new Mineral belonging to the Ilmenite Group, from Brazil. By Dr. E. Hussak, of the Geological Survey of S. Paulo; and G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum 30

Note on peculiar Quartz-Pseudomorphs found at the Owera Mine, Opitonui, North Island, New Zealand. By Prof. G. H. F. Ulrich, F.G.S. [Communicated by Prof. Judd, C.B., F.R.S.] 33

Notes and Comments 35

Obituaries. Alfred Olivier Des Cloizeaux 37

Emeritus-Professor M. Forster Heddle, M.D., F.R.S.E. 38

Albrecht Schrauf 42

Reviews 43

Abstracts 45

Plagionite, Heteromorphite and Semseyite as Members of a Natural Group of Minerals. By L. J. Spencer, M.A., F.G.S.; with Analyses by G. T. Prior, M.A., F.G.S.; Assistants in the Mineral Department of the British Museum 55

PAGE

Petrographical Notes on the Rock-specimens collected in Antarctic Regions during the voyage of H.M.S. *Erebus* and *Terror* under Sir James Clark Ross, in 1839-43. By G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum... 69

Riebeckite in Trachytic Rocks from Abyssinia. By G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum 92

Minerals from Swaziland: Niobates and titanates of the rare earths, chemically allied to Euxenite and Fergusonite; Cassiterite, Monazite, &c.; the "Æschynite" from Hitterö. By G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum 96

On some lead minerals from Laurium, namely, Laurionite, Phosgenite, Fiedlerite, and (new species) Paralaurionite. By G. F. Herbert Smith, B.A.; with Chemical Analysis by G. T. Prior, M.A., F.G.S., Assistants in the Mineral Department of the British Museum 102

Communications from the Oxford Mineralogical Laboratory. I. Mineralogical Notes: Zinc-Blende; Galena; Pyrites; Lead. By Prof. H. A. Miers, M.A., F.R.S.; with Analyses by E. G. J. Hartley, B.A.... 111

Note on the Crystals of Lead described in the preceding communication. By Allan Dick 118

II. On the constitution of the mineral Arsenates and Phosphates. By E. G. J. Hartley, B.A. 120

Reviews 123

Obituary. Andreas Arzruni 129

Abstracts 130

On a new mode of occurrence of Ruby in North Carolina. By Prof. J. W. Judd, C.B., LL.D., F.R.S., V.P.G.S., and W. E. Hidden, F.G.S.; with Crystallographic Notes by Dr. J. H. Pratt 139

On the Crystallography of the Rubies from Macon County, North Carolina. By Dr. J. H. Pratt... 150

PAGE

Communications from the Oxford Mineralogical Laboratory: On the constitution of the natural Arsenates and Phosphates. Part II. Pharmacosiderite. By E. G. J. Hartley, B.A. ... 152

On Langbeinite from the Punjab Salt Range. By F. R. Mallet, F.G.S., late Superintendent, Geological Survey of India ... 159

On a mass of Meteoric Iron from the neighbourhood of Caperr, Rio Senguerr, Patagonia. By L. Fletcher, M.A., F.R.S., Keeper of Minerals in the British Museum 167

On the Cliftonite and Tænite of the Meteoric Iron found in 1884 in the Sub-district of Youndegin, Western Australia. By L. Fletcher, M.A., F.R.S., Keeper of Minerals in the British Museum... 171

A Three-Circle Goniometer. By G. F. Herbert Smith, B.A., Assistant in the Mineral Department of the British Museum ... 175

Note on the Identity of Paralaurionite and Rafaelite. By G. F. Herbert Smith, B.A., Assistant in the Mineral Department of the British Museum 183

The Identity of Binnite with Tennantite; and the Chemical Composition of Fahlerz. By G. T. Prior, M.A., F.G.S., and L. J. Spencer, M.A., F.G.S., Assistants in the Mineral Department of the British Museum 184

Review 214

Abstracts 215

Communications from the Oxford Mineralogical Laboratory: On the constitution of the natural Arsenates and Phosphates. Part III. Plumbogummite and Hitchcockite. By E. G. J. Hartley, B.A. 223

Communications from the Oxford Mineralogical Laboratory: On the constitution of the natural Arsenates and Phosphates. Part IV. Beudantite. By E. G. J. Hartley, B.A. 234

Communications from the Oxford Mineralogical Laboratory: Note on the Hitchcockite, Plumbogummite and Beudantite analysed by Mr. Hartley. By Professor H. A. Miers, M.A., F.R.S. ... 239

PAGE

On Florencite, a new hydrated Phosphate of Aluminium and the Cerium Earths, from Brazil. By Dr. E. Hussak, of the Geological Survey of S. Paulo; and G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum 244

On Hamlinite, Florencite, Plumbogummite (Hitchcockite), Beudantite and Svanbergite, as members of a natural group of minerals. By G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum 249

On Ægirine and Riebeckite Anorthoclase Rocks related to the "Grorudite-Tinguaite" series, from the neighbourhood of Adowa and Axum, Abyssinia. By G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum... 255

On Stokesite, a new mineral containing tin, from Cornwall. By A. Hutchinson, M.A., Demonstrator of Mineralogy in the University of Cambridge 274

On Sulpharsenites of Lead from the Binnenthal. By R. H. Solly, M.A.; with Analyses by H. Jackson, B.A., B.Sc. 282

Obituaries. Carl Friedrich Rammelsberg 298

Geheimrath Professor Dr. Geinitz 300

James Reynolds Gregory 301

Reviews 302

Abstracts 305

Petrographical Notes on the Rock-Specimens collected in the Little Island of Trinidad, S. Atlantic, by the Antarctic Expedition of 1839-43, under Sir James Clark Ross. By G. T. Prior, M.A., F.G.S., Assistant in the Mineral Department of the British Museum... 317

On some remarkable composite crystals of copper pyrites from Cornwall. By Prof. W. J. Lewis, M.A., and A. L. Hall, B.A. 324

On Grassmann's method of axial representation, and its application to the solution of certain crystallographic problems. By W. J. Lewis, M.A., Professor of Mineralogy in the University of Cambridge 333

PAGE

On the determination of the positions of points and planes after rotation through a definite angle about a known axis. By R. W. H. T. Hudson, B.A. Communicated by Prof. W. J. Lewis, M.A. 343

Communications from the Oxford Mineralogical Laboratory. 1. On a Rhombic Pyroxene from South Africa. 2. On a method of illustrating the variation of thermal conductivity of crystals in different directions. 3. A twin crystal of Sapphire. 4. On Monazite and associated minerals from Tintagel, Cornwall. By H. L. Bowman, M.A., Demonstrator in Mineralogy 349

Conchite, a new Form of Calcium Carbonate. By Agnes Kelly. (Communicated by Prof. H. A. Miers)... 363

The alteration of Pyrite by underground water. By John W. Evans, LL.B., D.Sc., formerly State Geologist in Mysore ... 371

A List of New Mineral Names. By L. J. Spencer, M.A., F.G.S., Assistant in the Mineral Department of the British Museum ... 378

Notes and Comments 395

Review 397

Index... 399

Errata 407